



King County EMS

King County Emergency Medical Services Division
Seattle/King County Department of Public Health
999 3rd Avenue, Suite 700
Seattle, Washington 98104
(206) 296-4863

1st Edition
January 2004

CBT 443 Altered Mental States

Course Supplement

Intro

Consciousness is being awake, alert and aware of your surroundings. A healthy person is aware of thoughts, ideas and emotions when conscious. He or she is able to respond to others and communicate with them.

There are varying degrees of consciousness ranging from conscious and alert to lethargic to obtunded. Coma is a state of total unconsciousness from which a person cannot be aroused. It is important for the EMT to accurately assess and recognize changes in a patient's level of consciousness. This course focuses on overdoses and poisonings as causes of altered mentation.

Resources

The recertification exam for this module is based on a variety of resources. We recommend that you review the following:

Chapter 13 - Neurologic Emergencies - *Emergency Care and Transportation of the SICK and Injured*, 8th ed.

King County EMS *Patient Care Guidelines for BLS* (10/02 ed.) pages 1.5 (Noxious Stimuli) 2.24-26, 3.7-3.10, 3.14-15 and 3.21-23.

This course also has a hands-on practical skills component.

Objectives

CBT 443 is an EMT continuing education and recertification course. After completing this course you will be able to:

1. Identify the components of the central nervous system and peripheral nervous system.
2. Identify the four things the brain needs to be conscious and alert.
3. Identify the major safety concern related to overdose and poisoning patients.
4. Identify the single most important element in the assessment of a patient with altered mentation.
5. Identify the essential components of a physical exam required for a patient with an altered LOC.
6. Identify the purpose for checking pupillary response.
7. Identify the correct technique for checking LOC through noxious stimulus.
8. Identify four methods by which poisoning occurs.
9. Identify proper treatment for altered mental status including overdose and poisoning.

Terms

brainstem – Area of the brain between the spinal cord and cerebellum. The brain stem controls basic functions that do not require conscious attention such as breathing, digestion and heart activity.

central nervous system (CNS) – The main part of the nervous system that includes the cerebrum, cerebellum, brain stem and spinal cord. It does not include the peripheral nerves.

cerebrum – Largest part of the brain. It controls thought, movement, hearing, vision, speech, emotions and personality.

cerebellum – A division of the brain also called the “little brain.” It is located below the cerebrum and coordinates involuntary and “primitive” functions such as balance.

coma – A state of deep, often prolonged unconsciousness, usually the result of injury, disease or poison, in which an individual cannot sense or respond to external stimuli and internal needs.

lethargic – Pertaining to, affected with, or resembling drowsiness; dull; heavy.

miosis – Constriction of the pupil of the eye, resulting from a normal response to an increase in light or caused by certain drugs or pathological conditions.

obtunded – dulled or deadened, responds to pain.

peripheral nervous system – The peripheral nervous system includes the nerves that run from the spinal cord to the body’s organs, skin and muscles. This includes sensory and motor nerves coming from the spinal cord and brain stem.

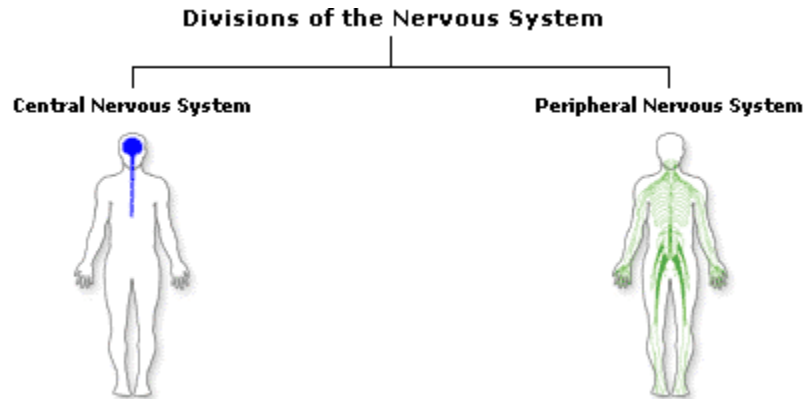
reticular activating system (RAS) – An area of nerves in the brainstem, thalamus and hypothalamus that controls consciousness.

toxidrome – A listing of specific signs and symptoms that would be caused by exposure to specific types of poisons or toxins.

The Nervous System

Central Nervous System

The central nervous system (CNS) includes the brain and spinal cord. The brain is comprised of the **cerebrum**, **cerebellum** and **brain stem**. These structures control nearly everything you do including sleep, emotions, muscle movement, hunger, thirst and memory.



Peripheral Nervous System

The peripheral nervous system provides direct input to the central nervous system from sensors in the body. It is made up of all the remaining nerves that run from the spinal cord through the body. Nerves that extend from the spinal cord that control the muscles of the body are called **motor nerves**. **Sensory nerves** allow sensations of feeling, hot or cold and position that travel back to the spinal cord and up to the brain.

The central nervous system receives impulses from the peripheral nervous system. It also sends signals back to the peripheral nervous system.

Consciousness

The brain needs four basic things to keep you alert and awake: sugar, oxygen, intact neural pathways and an intact reticular activating system (RAS). Anything that disturbs or disrupts these can cause alterations in mental status.

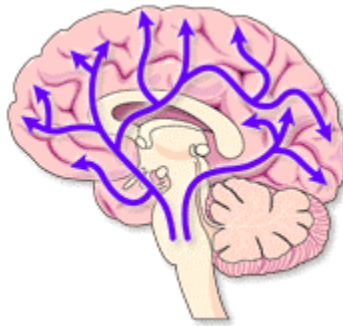
Sugar and Oxygen

Sugar (in the form of glucose) is the fuel on which the brain runs. **Oxygen** is needed by brain cells to carry out metabolism. The brain is only three percent of the total body weight and yet it uses 25% of its oxygen and 20% of its sugar. This is because there are billions of brain cells (neurons) and they are very active and require a constant supply of energy.

The brain is one of the first organs to shut down when either of these two elements is in short supply. A sudden lack of blood flow to the brain or lack of oxygen will shut the brain down in 5 to 10 seconds.

Intact Neural Pathways

Neural pathways are groups of nerves that run through the brain. They carry signals from the brainstem to various destinations in the brain. These pathways can be disturbed by trauma, tumors, chemicals (drugs) or electrical interference (that which can cause seizures). When someone has a seizure, the neural pathways through the brain are disrupted. Cerebrovascular accident (CVA), epilepsy and trauma are different events that affect the pathways resulting in altered mental states.



Intact Reticular Activating System

The **reticular activating system** (RAS) is the consciousness center of the brain that maintains wakefulness. It is a thimble-sized area of nerves in the brainstem, thalamus and hypothalamus that controls consciousness. It is the “power supply” for very a high-powered computer—your brain.

The RAS is responsible for your being alert and awake. It constantly “pokes a finger” at the cerebral cortex by sending brain waves to ensure that the cerebrum is attentive to incoming sensory signals.

During sleep, the RAS remains active while the remainder of the brain is “powered down.” If you are suddenly awakened by a loud noise the RAS goes into action and sends a signal to wake up the rest of the cerebral cortex. The RAS is the power supply to your central processing unit—the cerebral cortex. The RAS never stops unless traumatized or induced by drugs, stroke, or others.

Injury to RAS by overdose, poisoning or trauma can turn off power for the entire brain. Unconsciousness due to an insult to the RAS is a dangerous situation because this area controls basic functions such as heart rate, respirations, and so on.

**Altered LOC is a strong indication of insult
to the central nervous system.**

Scene Safety

Your primary concern when approaching the scene of a potential overdose or poisoning is to **protect yourself and your crew**. Observe the surroundings and patient position. Be aware of bystanders and other clues that may indicate danger to you, your crew or the patient. This information may also tell you what happened. Below are more scene safety considerations:

- Is it safe to enter?
- Do you need **police** back up?
- Note the presence of **weapons** or anything that could potentially be used as one.
- Leave yourself an out; never put yourself in a position that does not give you an avenue of **escape**.
- Approach your patients in a non-threatening manner. (Don't use threatening body language. Speak calmly and attempt to gain control with your words.)
- Attempt to gain **trust**. Be careful what you say and how you say it.
- Don't be judgmental.
- **Restrain** a patient where there are safety concerns or if you need to provide emergency care.

Once you have restrained a patient **do not release control**. It is wise to not trust a patient who promises to cooperate if released. Letting go may get you hurt. Also, do not allow a patient to leave the room or area. Don't let him or her to get behind a lockable door. A common ploy is a request to use the bathroom before transport to a hospital. The potential for violence either self-inflicted or directed at you is great.

STAY ALERT!

Illegal drugs and alcohol may cause a person to become aggressive and dangerous.

Look For Clues

Many times you will arrive at a scene and have no idea why the patient is unconscious. Start looking for clues the minute you arrive such as mechanism of injury, pill bottles, needles or incontinence.

Gather as much information as possible by asking questions of the patient and bystanders:

- What was he or she doing?
- Was he or she inside or outside when it happened? (environment)
- Were there chemicals or toxic substances involved?
- Were there any complaints prior to collapse?
- What is the patient's medical history?
- What medications has the patient taken?
- Do any patient medications indicate a history of heart disease, epilepsy or diabetes?
- Was the patient taking any alcohol or drugs?

The key to a good assessment of an altered level of consciousness is taking a thorough history and examining the surroundings for clues about what happened. Remember to look for medic-alert information in the form of necklaces and bracelets. You may need to check refrigerators, medicine cabinets and bedside tables. Strongly consider trauma as a cause for the unconscious patient involved in an unwitnessed event.

Focused History (Overdose)

Overdose is an excessive exposure, either intentional or unintentional, to a chemical substance. Many cases of drug overdose involve habitual drug users or attempted suicide with a prescription drug.

An accurate history may be difficult to obtain from an overdose patient. Many patients who cause themselves harm will not divulge information. Therefore, it is advisable to be suspicious of all information an overdose patient offers and prepare for the worst-case scenario.

Listen carefully to what a patient says that could indicate a self-inflicted injury. Document this information in the subjective section of the incident response form. Quote statements verbatim.

Gather information from witnesses at the scene. Talk to family members. Look for pill containers that may offer clues about what happened.

There is no way to know in the field whether someone actually has ingested or injected a dangerous drug or chemical. A patient may be alert and oriented one minute and then in cardiac arrest the next.

Continued and repeated evaluation is paramount in this situation.

Baseline LOC

It is important to establish and document a baseline level of consciousness in the patient with an altered mental status using the AVPU method. **LOC is the single most important element** in the assessment of a patient with altered mentation. Monitor LOC and be prepared with the tools you need to protect the airway.

Be sure to document the initial LOC and subsequent changes. This helps the ER staff diagnose and treat the patient. Be specific about your observations. Repeat LOC checks every few minutes to detect changes and trends in mentation.

Physical Exam (Overdose)

The presentation for a drug overdose will vary greatly depending on the type of drug used and dose. An overdose can affect all systems in the human body including cardiovascular, central nervous system, respiratory, gastrointestinal and metabolic. Multiple drugs taken together may have a variety of effects. Regardless of the cause, a physical exam should include:

- Check **LOC** --using the AVPU scale
- Check **vital signs**
- **Check pupil** size, symmetry and reactivity to light
- Auscultate **breath sounds** (heroin O/D can sound like pulmonary edema and aspiration of emesis can produce rhonchi)
- Examine **extremities** for needle marks, tracks and scars and possible past suicide attempts
- Observe **skin** for moisture, color and temperature

AVPU

AVPU is a mnemonic for alert, awakens to verbal stimuli, awakens to painful stimuli and unresponsive. It describes four general levels of consciousness.

Alert - Patient is awake and aware of his surroundings.

The oriented patient remembers fundamental information about himself: person, place, time and event. Describe alertness using these terms, for example, "Patient is alert and oriented to person and place." Do not say "Patient is alert and oriented *times two*."

Verbal - Patient awakens or responds to verbal stimulus. Use a simple command such as "stick out your tongue." Record the patient's reaction to this stimulus.

Pain - Patient awakens or responds to painful stimulus. Take note of the specific response, for example, "purposeful movement of arms" or "patient withdraws from pain."

Unresponsive - Patient does not respond to verbal or painful stimuli. This state is referred to as a coma.

Don't forget to check the patient's clothing, but be careful. **Watch for needles!** Don't plunge your hands blindly into pockets without feeling the outside first.

General Signs and Symptoms of Overdose		
Altered Mental Status <ul style="list-style-type: none"> • Agitation • Paranoia • Nonsensical conversation • Aggression • Lethargy • Coma • Hallucinations • Rapid speech 	Respiratory <ul style="list-style-type: none"> • Increased • Decreased • Apnea 	Cardiovascular <ul style="list-style-type: none"> • Hypertension • Hypotension • Tachycardia • Bradycardia • Arrhythmias • Cardiac arrest
Pupil Reaction <ul style="list-style-type: none"> • Normal • Dilated • Constricted 	Temperature <ul style="list-style-type: none"> • Hyperthermia • Hypothermia 	Skin Signs <ul style="list-style-type: none"> • Diaphoretic • Pale • Flushed • Cyanotic • Look for needle track marks and/or abscesses

Posturing

Posturing is a term that describes a reaction to a painful stimulus in the unconscious patient. *Decorticate posturing* occurs when the arms flex and the legs extend. *Decerebrate posturing* occurs when the arms and legs both extend in response to a painful stimulus. Both are signs of severe intracranial pressure or hypoxia.

Signs / Symptoms of Common Overdoses Substances

CNS depressants, sedatives and tranquilizers
(alcohol, barbiturates, antihistamines, tranquilizers)

- Altered LOC
- CNS depression
- Respiratory and circulatory failure
- Diaphoresis
- Tachycardia
- Dilated pupils

SSRI

(selective serotonin reuptake inhibitors, for example: Prozac, Zoloft, Paxil, Celexa)

- Altered LOC
- Nausea, vomiting
- Hallucinations
- Diaphoresis
- Headache

Psychedelic drugs

LSD

- Altered LOC
- Anxiety, paranoia, illusion, hallucinations, flashbacks

PCP

- May cause violent rage, paralysis and seizures

Inhalants

(aerosol propellants, gasoline, kerosene, glues, lacquer thinners, lighter fluid, typing correction fluid)

- Altered LOC progressing to coma
- Swollen mucous membranes, runny nose
- Cardiac arrhythmias
- Cardiac arrest

Alcohol Intoxication

- Altered LOC
- Dilated pupils
- Vomiting
- Inability to protect airway

Narcotics

(heroin, codeine, morphine, opiates)

- Altered LOC progressing to coma
- Respiratory depression progressing to apnea
- Constricted pupils
- Needle track marks
- Diaphoresis
- Cardiac arrest

Cannabis

(THC - tetrahydrocannabinol, marijuana, hashish)

- Moderate dosages cause euphoria, relaxed inhibitions and disoriented behavior.
- Overdoses can cause fatigue, tremors and paranoia

Stimulants

(cocaine, methamphetamine, ephedrine, methylphenidate – Ritalin)

- Altered LOC – excitation, agitation, paranoia, violence
- Dilated pupils
- Hypertension
- Hyperthermia
- Tachycardia, arrhythmias
- Severe cardiac toxicity
- MI, Angina
- Coma
- Cardiac arrest

Antidepressants

(tricyclics - nortriptyline, amitriptyline, doxepin, imipramine)

- Altered LOC – coma- seizures
- Dilated pupils
- Respiratory depression
- Hypotension – circulatory failure
- Cardiac arrhythmias and cardiac arrest

Acetaminophen

(Tylenol)

- May be asymptomatic early
- General malaise
- Nausea vomiting
- CNS depression – coma – seizures
- RUQ pain
- Diaphoresis
- Shock

GHB

(Street names for GHB include Liquid ecstasy, Liquid X, Georgia Home Boy, Goop, Gamma-oh and Grievous Bodily Harm.)

- Euphoria
- Altered LOC
- Drowsiness
- Nausea
- Seizures
- Severe respiratory depression
- Coma
- Death

Gamma hydroxybutyrate (GHB) is a central nervous system depressant abused for its ability to produce euphoric and hallucinatory states and its alleged ability to release growth hormone and stimulate muscle growth. GHB is used in liquid, powder, or capsule form. It can be snorted, smoked and mixed into drinks. It is odorless and nearly tasteless.

Pupil Response

The pupils of the eyes normally constrict when exposed to light and dilate when light diminishes. Pupils should respond briskly and equally to a penlight.

The pupils are controlled by the third cranial nerve (oculomotor nerve). The cranial nerve travels a long path to the brain and is easily compressed by swelling of the brain. Abnormal pupil response may indicate that something is wrong in the brain. Shade the eyes with your hand when doing this test in bright light. Record the results of this check—even if it is negative.

Pupils			Potential Conditions
size	symmetry	reactivity	
Dilated	Equal	Reactive	Hypoxia Alcohol Stimulants (cocaine, meth)
Dilated	Equal	Unreactive	Anoxia (cardiac arrest) profound alcohol intoxication Seizures Drugs (psychedelics, LSD)
Dilated	Unequal	Unreactive	CVA (hemorrhagic) Head injury
Constricted	Equal	Unreactive	Opiates (heroin) Barbituates Brainstem injury

Note that unequal pupil size may be the result of a birth defect, a previous eye injury, medication or prosthesis (glass eye). The pupil of a glass eye will not react to light.

Noxious Stimuli

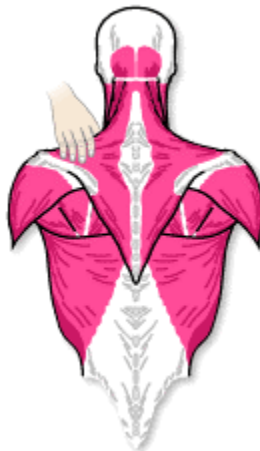
A noxious stimulus, such as squeezing the upper trapezius muscle, is a test of central nervous system function. Use the test only on someone who does not respond to verbal stimuli. Document the reaction to the stimulus. There are three possible patient responses to a noxious stimulus:

- No response
- Appropriate response such as locates pain
- Inappropriate such as decerebrate posturing

KC EMS no longer recommends other methods of administering a painful stimulus such as: sternal rub and pressure near the angle of the jaw. These methods can cause further complications if there is an underlying injury.

These are approved

- Firm cutaneous pinching (“trap squeeze”)
- Firm earlobe pressure
- Pressure over the fingernail



“Trap Squeeze”

Poisoning

The term *poisoning* means ingestion or contact with a substance that causes harm. These exposures can be accidental or self-inflicted. Proper management depends on your ability to quickly evaluate the situation, begin treatment, request ALS resources if necessary and provide safe and rapid transport.

In the year 2000, poison control centers in the US reported 2.2 million poison exposures, approximately one exposure every 15 seconds. Of these 2.2 million, 90% occurred in the home with over half being in children under age six.

Poisoning occurs through one or more of the following ways:

- Ingestion
- Inhalation
- Injection
- Absorption

Ingestion

Ingestion is the most common form of poisoning. Approximately 80% of all poisonings are by mouth. Poisoning by mouth can produce immediate effects such as burns from a cleaning solution or the effects may be delayed for several hours, for example, with some plant ingestions.

Treatment for an ingested poison is aimed at neutralizing or removing the substance from the body before it has a chance to be absorbed by the digestive system. In the past, syrup of ipecac was widely used by EMS personnel for immediate treatment of many types of ingestions. Recently it has fallen from favor and is now infrequently used because of the potential risk of aspiration.

Gastric lavage is still used in some hospitals for treatment of ingested poisoning. This is accomplished by placing a large tube into the stomach from the mouth and “washing out” the stomach until it appears empty. This does nothing to remove any of the substance that may have entered the intestinal tract. For this reason, activated charcoal continues to be the most widely used treatment for most poison ingestions. Charcoal works by binding itself to the substance, blocking digestion and absorption of the toxin.

Inhalation

Inhalation poisonings result in thousands of deaths each year in the United States. Most of these deaths are the result of exposure to carbon monoxide, a colorless and odorless gas that blocks the body’s ability to deliver oxygen to the tissues. Exposure to cleaning products, industrial chemicals and gases also contribute to many injuries and deaths.

Some inhalation poisonings are the result “huffing” a practice of using solvents, fuel and paints to produce a chemical high. In all of these cases of suspected inhalation poisoning, hypoxia should be suspected and treated aggressively with high flow oxygen. Remember,

as with all emergency responses, your safety and that of the other responders is crucial. Do not enter a suspected toxic environment unless you are trained and equipped to do so.

Injection

Injected poisons enter the body thru a break in the skin. This can be caused by intentional intravenous drug use, animal bites or insect bites. By far, the most common cause of injected poisoning is due to insect stings. Stings from winged insects such as bees, wasps and yellow jackets can cause an exaggerated allergic response known as anaphylactic shock. This profound cardiovascular and respiratory collapse is responsible for over 100 deaths each year in the US.

Absorption

Absorbed poisons occur when a substance is absorbed through the skin or mucus membranes. The symptoms can range from minor, as in the case of poison oak, to severe as in the case of chemical burns or organophosphate poisoning. In all cases your primary concern is rescuer safety.

Decontamination may be necessary before treatment can begin. Do not apply water to dry chemical substances because this may “activate” the chemical with catastrophic consequences. Wet chemicals and chemicals in the eyes should be washed away with copious amounts of water or saline.

Focused History (Poisoning)

In many cases of poisoning, the toxin involved is not always known. You may find that the patient, due to either age, injury or decreased level of consciousness, is not able to give you information about the exposure. Regardless, you must attempt to get a history using the SAMPLE method.

In some of these situations a poison **toxidrome** may be helpful for identifying the substance. A toxidrome is a listing of specific signs and symptoms caused by exposure to specific types of poisons. (see Physical Exam)

Contacting Poison Control for information, including assistance with poison identification and treatment recommendations is extremely helpful and encouraged.

Occasionally, you may be called upon to evaluate a small child who has ingested something that does not require treatment or transport to the next level of care. In these cases, Poison Control can provide follow-up telephone calls to monitor the patient for changes that warrant further evaluation or transport. This continued “home monitoring” is very comforting to parents and caregivers that still may be unsure or anxious about the event and health of the child.

Physical Exam (Poisoning)

There are many potential toxins that can cause poisoning and identification is problematic. The following **toxidromes** may prove helpful.

Carbon Monoxide Poisoning

- Headache
- Tachypnea (rapid respiratory rate)
- Nausea and vomiting
- Altered level of consciousness
- Pink, flushed mucus membranes
- Coma
- Inaccurate pulse oximetry readings (appear normal even in profound hypoxia)

Organophosphate Poisoning (insecticides such as parathion, diazinon)

- Decreased level of consciousness
- Bradycardia / hypotension
- Vomiting / excessive salivation
- Miosis (pinpoint pupils)
- Sweating
- Bronchospasm

Cyanide Poisoning

- Headache
- Burning sensation in mouth or throat
- Confusion
- Decreased level of consciousness
- Agitation or combative behavior
- Shortness of breath
- Bitter smell of almonds

Treatment for Altered LOC

The potential for an airway problem, such as an obstruction or aspiration, is greater when someone is unconscious or has an altered level of consciousness. Therefore, your priority is to ensure adequate airway and breathing.

Key Points

- Protect the airway
- Provide oxygen according to the patient's needs
- Assess blood glucose level, if trained and equipped to do so
- Position the patient according to the type of insult

Make sure the patient is breathing adequately. If not, you may need to provide adequate respirations using a BVM and high-flow oxygen. Choose the oxygen delivery rate and system according to the needs of the patient using the following guidelines.

<u>Condition</u>	<u>Recommended Oxygen Flow Rate</u>
Alcohol Intoxication/ Alcohol Withdrawal	Low flow*
Coma	High flow If respiratory effort inadequate, assist with BVM and high flow
Drug Overdose	Depends on respiratory status
Head Injury	High flow with BVM assist at 24 BPM
Headache	Low flow in most cases
Hypoglycemia	Depends on patient needs
Seizure	Low flow (postictal) High flow for status seizures (status epilepticus).
Stroke	Depends on respiratory status

*Depends on patient status because alcohol may cause respiratory depression, in which case, the patient needs assisted ventilations with a BVM and high flow oxygen.

Remember that unresponsive patients may lose their gag and cough reflexes. Keep the airway clear and open; monitor the airway closely. Take cervical spine precautions if trauma is suspected.

Patient Position

Position the unconscious or obtunded patient (non-trauma) to protect the airway. In general, patients who are unconscious should be placed in the recovery position or the lateral recumbent position to prevent aspiration. The following table summarizes appropriate positions:

<u>Condition</u>	<u>Recommended Position</u>
Alcohol Intoxication/ Alcohol Withdrawal	Lateral recumbent.
Coma	On side for airway protection, if no trauma is suspected.
Drug Overdose	If unconscious, position for airway protection (e.g. lateral recumbent).
Head Injury	Immobilize cervical spine and place supine with head of backboard tilted up 15 degrees
Headache	Semi-Fowlers (elevate head and shoulders 30 degrees), if tolerated.
Hypoglycemia	If unconscious, position for airway protection.
Seizure	If still convulsing, lay on floor and protect from injury. Do not restrain.
Stroke	If conscious, Semi-Fowlers (elevate head and shoulders 30 degrees). If unconscious, position for airway protection (e.g. lateral recumbent).

Treatment (Overdose)

All patients with suspected overdose should be transported to the closest appropriate emergency department for evaluation and treatment. Local hospitals should never be bypassed based upon perceived psychological or emotional needs of the patient. or police request. When dealing with a potential overdose, remember the following key points:

- Scene safety
 - Call for police back up if needed
 - Protect yourself
- Gain the patient's trust and confidence if possible
- Manage ABC's and treat appropriately
- Request medic evaluation if necessary
- Monitor closely for decreasing LOC
- Be prepared for vomiting
- Treat for shock

Never leave a potential overdose patient at the scene and

DON'T ALLOW A POV transport!

Treatment (Poisoning)

There are several important treatment steps in the case of poisoning that you may need to take depending on the method of exposure and type of poisoning. If indicated, all poisoning patients should be transported to the closest appropriate medical facility, unless there are special circumstances like a mass casualty incident.

Ingested Poisons

- ABCs
- Monitor airway / administer oxygen
- Request medics if necessary
- Identify poison if possible
- Contact poison control

Inhaled Poisons

- Scene safety
- Remove patient from toxic environment
- ABCs
- Monitor airway / high flow oxygen
- Request medics if necessary
- Contact poison control

Absorbed Poisons

- Decontaminate patient if necessary (do not attempt to wash away dry chemicals)
- ABCs
- Monitor airway / administer oxygen
- Request medics if necessary
- Identify toxin if possible
- Contact poison control

Injected Poisons

- ABCs
- Monitor airway / administer oxygen
- Request medics if necessary
- Identify toxin if possible
- Contact poison control

Remember that **scene safety** is always your primary concern in a potential poisoning.

Occasionally EMTs may be called upon to evaluate a patient who has ingested a substance that requires no further evaluation or transport to a medical facility. In these cases it is

suggested that the patient or their guardian be put into contact with Poison Control for follow up and monitoring of the patient's condition once you have left the scene.

In cases of suspected significant poisoning; patients should be transported to the closest appropriate emergency room. The key to successful management of a toxic exposure is to quickly neutralize the substance to prevent further harm. Do not passPatients should never bypass close an appropriate care facility to be transported to a more distant facility based upon perceived psych emotional needs or police request. Treating the toxic exposure should always be the primary concern.